

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-147235

(43)Date of publication of application : 06.06.1997

(51)Int.Cl.

G07G 1/06
G06F 17/60
// B41J 2/325

(21)Application number : 07-309063

(71)Applicant : KOFU NIPPON DENKI KK

(22)Date of filing : 28.11.1995

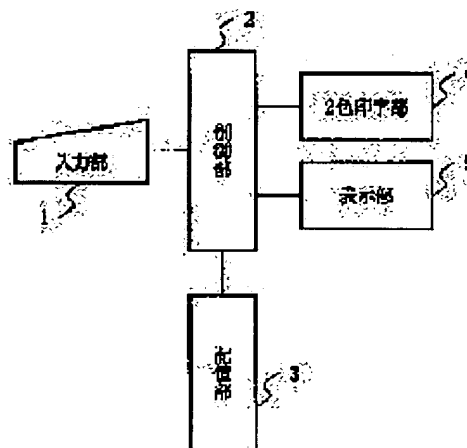
(72)Inventor : KOUNO YOSHIMORI

(54) POS TERMINAL EQUIPMENT

(57)Abstract:

PROBLEM TO BE SOLVED: To extremely reduce a size and to facilitate the maintenance of a POS terminal by using a double color thermal printer to print even for the stamps on the receipts.

SOLUTION: The registration of sold commodities, the input of the deposit cash and the input of a totalization operation, etc., are carried out via an input part 1. The information on the commodities are taken out of a storage part 4, and the information to be printed on the receipts, etc., are produced at a control part 2 and supplied to a double color print part 4. The conventional stamp information such as the store name, thanks, advertisement, etc., are printed in a different color from other information on the receipts.



LEGAL STATUS

[Date of request for examination] 28.11.1995

[Date of sending the examiner's decision of rejection] 24.12.1997

[Kind of final disposal of application other than the examiner's decision of rejection or

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to the POS terminal equipped with the thermal printer which can perform 2 color printing about a POS terminal.

[0002]

[Description of the Prior Art] The input section 41 in which the conventional POS terminal performs registration of sales goods, deposit input, total operation, etc. as shown in drawing 4, The storage section 43 which memorizes the various data about sale goods, a terminal-control program, etc., The control section 42 which controls each part of a terminal by the terminal-control program, and the printing section 44 which performs printing to a receipt, a journal, etc., It is constituted including the display 45 which displays guidance, an actuation condition, a numeric value, etc., and the stamp section 46 which seals the image which contains alphabetic characters, such as a store name, acknowledgement, and publicity, in a receipt.

[0003] And in order to call a customer's attention visually especially, a different color from the color of printing performed by the printing section 44 was being used for the image containing alphabetic characters, such as a store name which seals a receipt by the stamp section 46, acknowledgement, and publicity, and the so-called stamp.

[0004]

[Problem(s) to be Solved by the Invention] In order to display on a receipt using a different color from the color of printing performed by the printing section in order to call a customer's attention visually especially, the image whose conventional POS terminal mentioned above contains alphabetic characters, such as a store name, acknowledgement, and publicity, in a receipt, and the so-called stamp need to be equipped with the stamp section, and have the fault of causing complication of a device, and complicated-ization of maintenance.

[0005] the object of this invention is to offer the POS terminal which uses the thermal printer which can perform 2 color printing, deletes a stamp device by performing the stamp to a receipt by this printer, is markedly alike, and can perform miniaturization and simplification of maintenance.

[0006]

[Means for Solving the Problem] An input means by which the POS terminal of the 1st invention inputs registration of sales goods, input of a deposit, total operation, etc., A storage means to memorize information, such as information about goods, and a terminal-control program, It is constituted including 2 color printing means to print by one color of said two colors according to printing color specification using the thermographic recording paper which colors two colors which are different from each other, a display means to display printing information, and the control means that controls said each means by said terminal-control program.

[0007] It is characterized by an alphabetic character and images, such as a store name which prints a control means in a receipt, acknowledgement, and publicity, printing the POS terminal of the 2nd invention in the POS terminal of the 1st invention in a different printing color from the printing color of

other parts of said receipt.

[0008] The POS terminal of the 3rd invention is characterized by 2 color printing means using the thermographic recording paper which colors two colors of red and black in the POS terminal of the 1st or the 2nd invention.

[0009]

[Embodiment of the Invention] Next, the gestalt of operation of this invention is explained with reference to a drawing.

[0010] Drawing 1 is the block diagram showing the gestalt of 1 operation of the POS terminal of this invention.

[0011] The input section 1 in which the POS terminal of the gestalt of this operation performs registration of sales goods, deposit input, total operation, etc. as shown in drawing 1, The control section 2 which will control each part of a terminal by the storage section 3 and the terminal-control program if the various data about sale goods, a terminal-control program, etc. are memorized, It is constituted including 2 color printing sections 4 which perform printing to a receipt, a journal, etc., and the display 5 which displays guidance, an actuation condition, a numeric value, etc.

[0012] Drawing 2 is the mimetic diagram showing the configuration of 2 color printing sections 4.

[0013] The receipt 29 which hands 2 color printing sections 4 to a customer as shown in drawing 2, and the journal 28 which carries out record-keeping of the sales, The take-up spool 25 which rolls round a journal 28, and the thermal head 21 which performs printing of a receipt 29, The thermistor 30 and thermistor 31 which measure the temperature of the thermal head 22 which prints a journal 28, and a thermal head 21 and a thermal head 22, respectively, The impression energy table 27, Receive supply with printing data and printing color the data from a control section 2, receive supply with the temperature information on a thermal head 21 and a thermal head 22 from a thermistor 30 and a thermistor 31 again, and the impression energy table 27 is referred to. It is constituted including the printer control section 26 which determines the impression pulse width to a thermal head 21 and a thermal head 22, and performs printing control of a printer.

~~[0014] 2 color coloring thermographic recording paper which uses a journal 28 and a receipt 29 for 2 color printing of black and red is used.~~ Since the heat energy which coloring takes by the case of black coloring and the case of red coloring differs, this 2 color coloring thermographic recording paper prints by selecting the heat energy needed according to the temperature of the printing color the data from a control section 2, a thermal head 21, and a thermal head 22 on the occasion of printing by the thermal head 21 and the thermal head 22 from the impression energy table 27.

[0015] Drawing 3 is data storage drawing of the impression energy table 27. As the impression energy table 27 is shown in drawing 3, the black pulse width which shows the time amount energized to the thermal head in the red pulse width which shows the time amount energized to the temperature of a thermal head and the thermal head in red printing corresponding to this, and black printing is stored.

~~[0016] Next, actuation of the POS terminal of the gestalt of this operation is explained.~~

[0017] If a sales goods identifier (reading of the bar code usually according to a bar code reader) and quantity are inputted from the input section 1, it directs these printing data and printing color the data (in this case since it is the usual data black printing assignment) in 2 color printing sections 4 while it calculates that **** by a control section 2 reading the trade name and unit price which were inputted from the storage section 3, and applying quantity to a unit price and displays these on a display 5.

[0018] If this printing data and black printing the data are supplied to the printer control section 26 from a control section 2, it will search the black pulse width corresponding to the temperature information supplied from a thermistor 30 and a thermistor 31 from the impression energy table 27, will energize only that time amount width of face to a thermal head 21 and a thermal head 22, and will perform printing corresponding to printing data at a receipt 29 and a journal 28, respectively.

[0019] If the input section 1 performs total operation when the above-mentioned actuation is performed and it ends about all the sales goods that the customer purchased, a control section 2 will perform black printing by 2 color printing sections 4 while it calculates the total amount of all sales goods and displays it on a display 5. ~~ca 23 ?~~

[0020] If the amount of money to which a customer balances this total amount is handed, the amount of this deposit is inputted from the input section 1, and a control section 2 will perform black printing by 2 color printing sections 4 while it calculates change and displays it on a display 5 - C1 23

[0021] When it sells now, there is no error in an account etc. and it ends So that a salesclerk may input a post process from the input section 1, this may be answered and a control section 2 may carry out alphabetic characters, such as a store name, acknowledgement, and publicity, and printing of an image to a receipt 29 at the conventional stamp, i.e., a receipt. That printing data and printing color the data (red printing assignment since it is stamp data, in order [in this case,] to call a customer's attention visually) are directed.

~~[0022]~~ If this printing data and red printing the data are supplied to the printer control section 26 from a control section 2, it will search the red pulse width corresponding to the temperature information supplied from a thermistor 30 from the impression energy table 27, will energize only that time amount width of face to a thermal head 21, and will perform printing corresponding to stamp data in a receipt 29.

[0023] Then, a salesclerk separates a receipt 29, with a sales article and change, hands to a customer and ends dealings.

[0024] Although the case where stamp data were printed at the last of a receipt was raised with the above explanation as an example, as for this invention, it is obvious that it can apply also when it is not limited to this and prints at both the beginning of a receipt or the beginning, and the last.

[0025] Furthermore, 2 color printing is not only limited to stamp data, and can also carry out correction printing by red to the correction part of the printed data etc.

[0026] As explained above, in the POS terminal of the gestalt of this operation, by having 2 color printing sections 4, a stamp device, this control circuit, etc. can be deleted, small [of equipment] and lightweight-ization can be performed, maintenance of the ink supplement to a stamp etc. becomes unnecessary, and maintenance manday can be reduced.

[0027] Furthermore, if correction printing by red is carried out to the correction part of the printed data etc., the check of a correction part etc. can be performed easily.

[0028]

[Effect of the Invention] As explained above, by having 2 color printing sections, a stamp device, this control circuit, etc. can be deleted, small [of equipment] and lightweight-ization can be performed, maintenance of the ink supplement to a stamp etc. becomes unnecessary, and the POS terminal of this invention has the effectiveness that maintenance manday is reducible.

[0029] Furthermore, it has the effectiveness that the check of a correction part etc. can be performed easily, by carrying out correction printing by red to the correction part of the printed data etc.

[Translation done.]